ABSTRACT OF THE DISCLOSURE

A system and method for updating a Node-B's number in a mobile communication system. The system and method update a processor loading data (PLD) without interrupting a mobile communication service when there is a need for a Node-B's number to be updated in the mobile communication system. The PLD to be updated is created by a URM (UMTS Radio Manager), and the created PLD is transmitted to a Node-B or RNC (Radio Network Controller) requiring the created PLD. After receiving the created PLD, the Node-B and the RNC perform a system reset operation using the received PLD other than pre-stored PLD, resulting in a reduction in a service interruption time.